Facility Name: Norda Inc

Location: 140 Route 10. East Hanover NJ

EPA Region: Region II

Person(s) in Charge of the Facility: NJDEP - Bureau of Environmental Evaluation Cleanup and Responsibility Assmt.

Name of Reviewer: Robert Raisch Date: 8/18/89

General Description of the Facility:

(For example: landfill, surface impoundment, pile, container; types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action, etc.)

Major area of concern is area where approximately 3500 drums of process waste were buried during the 1960's. The major route of concern for the materials buried is groundwater. An ongoing ECRA investigation/remediation program which has addressed most the source and contamination of the site ~~and~~ is continuing at this time

Scores:

HRS S_M = 46.90 (S_{gw} = 80.76 S_{sw} = 7.83 S_a = 0)

PRO S_M = 54.75 (S_{gw} = 80.76 S_{sw} = 11.75 S_a = 48.10)

HRS COVER SHEET

249145

Ground Water Route Work Sheet

Rating Factor	Assigned Value (Circle One)	Multiplier	HRS	Max. Score	PRO
1 Observed Release	0 45	1	45	45	45
If observed release is given a score of 45, proceed to line 4. If observed release is given a score of 0, proceed to line 2.					
2 Route Characteristics					
Depth to Aquifer of Concern	0 1 2 3	2		6	
Net Precipitation	0 1 2 3	1		3	
Permeability of the Unsaturated Zone	0 1 2 3	1		3	
Physical State	0 1 2 3	1		3	
Total Route Characteristics Score				15	
3 Containment	0 1 2 3	1		3	
4 Waste Characteristics					
Toxicity/Persistence (Nitrobenzene)	0 3 6 9 12 (15) 18	1	15	18	
Hazardous Waste Quantity	0 1 2 3 4 5 (6) 7 8	1	6	8	6
Total Waste Characteristics Score			21	26	21
5 Targets					
Ground Water Use	0 1 2 (3)	3	9	9	
Distance to Nearest Well/Population Served	0 4 6 8 10 / 12 16 18 20 / 24 30 32 35 40	1	40	40	
Total Targets Score			49	49	49
6 If line 1 is 45, multiply 1 x 4 x 5 / If line 1 is 0, multiply 2 x 3 x 4 x 5			46305	57,330	46305
7 Divide line 6 by 57,330 and multiply by 100		S_{gw} =	80.76		80.76

Surface Water Route Work Sheet

Rating Factor	Assigned Value (Circle One)	Multiplier	HRS	Max. Score	PRO
1 Observed Release	0 45	1	0	45	45
If observed release is given a value of 45, proceed to line 4. If observed release is given a value of 0, proceed to line 2.					
2 Route Characteristics					
Facility Slope and Intervening Terrain	0 (1) 2 3	1	1	3	
1-yr. 24-hr. Rainfall	0 1 (2) 3	1	2	3	
Distance to Nearest Surface Water	0 1 (2) (3)	2	4	6	
Physical State	0 1 2 (3)	1	3	3	
Total Route Characteristics Score			10	15	
3 Containment	0 1 2 (3)	1	3	3	
4 Waste Characteristics					
Toxicity/Persistence	0 3 6 9 12 (15) 18	1	15	18	15
Hazardous Waste Quantity	0 1 2 3 4 5 (6) 7 8	1	6	8	6
Total Waste Characteristics Score			21	26	21
5 Targets					
Surface Water Use	0 1 (2) 3	3	6	9	6
Distance to a Sensitive Environment	0 (1) 2 3	2	2	6	2
Population Served/Distance to Water Intake Downstream	(0) 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40	0
Total Targets Score			8	55	8
6 If line 1 is 45, multiply 1 x 4 x 5. If line 1 is 0, multiply 2 x 3 x 4 x 5			5040	64,350	7560
7 Divide line 6 by 64,350 and multiply by 100		S_{SW} =	7.83		11.75

AIR ROUTE WORK SHEET

Rating Factor	Assigned Value (Circle One)	Multiplier	HRS	Max. Score	PRO
[1] Observed Release	0 45	1	0	45	45
Date and Location:					
Sampling Protocol:					
If line [1] is 0, the S = 0. Enter on line [5]. If line [1] is 45, then proceed to line [2].					
[2] Waste Characteristics					
Reactivity and Incompatibility	0 1 2 (3)	1		3	3
Toxicity	0 1 (2) 3	3		9	6
Hazardous Waste Quantity	0 1 2 3 4 5 (6) 7 8	1		8	6
Total Waste Characteristics Score				20	15
[3] Targets					
Population Within 4-Mile Radius	0 9 12 15 18 (21) 24 27 30	1		30	21
Distance to Sensitive Environment	0 (1) 2 3	2		6	1 2
Land Use	0 1 2 (3)	1		3	3
Total Targets Score				39	25 26
[4] Multiply [1] x [2] x [3]				35,100	16875 17550
[5] Divide line [4] by 35,100 and multiply by 100 S_a =			0		48.10 50.00

HRS

	S	S^2
Groundwater Route Score (S_{gw})	80.76	6522.18
Surface Water Route Score (S_{sw})	7.83	61.31
Air Route Score (S_a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		6583.49
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		81.14
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M$		46.9

WORKSHEET FOR COMPUTING S_M

PRO

	S	S^2
Groundwater Route Score (S_{gw})	80.76	6522.18
Surface Water Route Score (S_{sw})	11.75	138.06
Air Route Score (S_a)	48.10	2313.61
$S_{gw}^2 + S_{sw}^2 + S_a^2$		8973.76
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		94.73
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M$		54.75

WORKSHEET FOR COMPUTING S_M

TABLE 1

ECRA SAMPLING PLAN

SAMPLE SUMMARY[1]

ADRON, INC.

EAST HANOVER, NEW JERSEY

Sample Point Designation	Performing Analysis[2]	Sample Description	Sample Location[3]
Field Blank	ETC	Water Sample for Quality Assurance	Collected at Boring 108
SB 101S3	ETC	Soil Sample at Sump Bldg 25	Boring 101, 12-13 ft. below grade
SB 102S3	ETC	Soil Sample at Sump Bldg 22	Boring 102, 9½-10 ft. below grade
SB 103S4	ETC	Soil Sample at Septic Tank Bldg 3	Boring 103, 6-8 ft. below grade
SB 104S4	ETC	Soil Sample at Sump Bldg 27	Boring 104, 9-9½ ft. below grade
B104	ETC	Soil Sample for Septic Bldgs 23, 25 and 27	Boring 104, 18-20 ft. below grade
S-22	ETC	Soil Sample for Septic Bldgs D and B-1 and Vehicle Maintenance Bldg.	Boring 105, 42-44 ft. below grade
B106S9	ETC	Soil Sample for Septic Bldg #1	Boring 106, 16-18 ft. below grade
B 107-S19	ETC	Soil Sample for Septic Bldgs D and B-1	Boring 107, 36-38 ft. below grade
B 108-S5	ETC	Soil Sample from Fire Pond	Boring 108, 9-10 ft. below grade
DRC1	ETC	Soil Sample from Drum Cleaning Area	Drum Cleaning Area northeast of Bldg 22, 2 ft. below grade
SDUM	ETC	Soil Sample Below Southern End of Dumpster	Dumpster northwest of Bldg 22
NDUM	ETC	Soil Sample Below Northern End of the Dumpster	Dumpster northwest of Bldg 22
SCB	ETC	Soil/Sediment Sample from Catch Basin	Catch basin north of vehicle Vehicle Maintenance Bldg along western plant boundary
VM	ETC	Soil/Sediment Sample from Catch Basin at Vehicle Maintenance Bldg	Catch basin at southern end of Vehicle Maintenance Bldg.
NCB	ETC	Soil/Sediment Sample from Catch Basin	Catch basin north of fence corner at northwest corner of plant
SLAWN	ETC	Soil Sample	Grassy area near southern entrance to plant.
RSTRM	ETC	Water Sample from Stream/Seep	Seep entering wooded area northwest of MW-5.

TABLE 1 (continued)

Sample Point Designation	Performing Analysis[2]	Sample Description	Sample Location[3]
Method Blank	CL	Method Blank	—
Trip Blank	CL	Trip Blank	—
Sample #2	CL	Soil Sample	Trench at Cell #4, 3 ft. below grade, 1/2 ft. from drum deposit
Sample #4	CL	Soil Sample	Trench at Cell #4, 3 ft. below grade, 6½ ft. from drum deposit
Sample #5	CL	Soil Sample	Trench at Cell #4, 3 ft. below grade at side of cell deposit
Sample #8	CL	Soil Sample	Trench at Cell #4, 3 ft. below grade, 1½ ft. from drum deposit
Sample #9	CL	Soil Sample	Trench at Cell #4, 8 ft. below grade, 2 ft. from drum deposit
Sample #11	CL	Soil Sample	Trench at Cell #4, 5 ft. below grade, 2½ ft. from drum deposit
Sample #13	CL	Soil Sample	Trench at Cell #1, 8 ft. below grade, 2½ ft. from drum deposit
Sample #14	CL	Soil Sample	Trench at Cell #1, 8 ft. below grade, 10½ ft. from drum deposit
Sample #16	CL	Soil Sample	Trench at Cell #1, 5 ft. below grade, 1/2 ft. from drum deposit
Sample #18	CL	Soil Sample	Trench at Cell #1, 8 ft. below grade, 15 ft. from drum deposit
Sample #21	CL	Soil Sample	Trench at Cell #1, 3 ft. below grade, 12½ ft. from drum deposit
Sample #22	CL	Soil Sample	Trench at Cell #1, 7½ ft. below grade, 1/2 ft. from drum deposit
Borrow Pit	CL	Soil Composite from 4 locations	Borrow Pit/Sand and Gravel Quarry

NOTES:

1. Summary of samples for which laboratory data has been received by 2/28/86.
2. ETC= Environmental Testing & Certification, Edison, New Jersey
   CL= Century Laboratories, Inc., Thorofare, New Jersey
3. Refer to Figure 1 for location of samples analyzed by ETC and to Figures 5, 6 and 7 for location of samples analyzed by CL.
4. See Tables 2 and 3 for results of chemical analysis.